

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: EPHESUS

Report Number: P624124

Luminaire Tested: **EPH-VN-08-D-950-U-44**

Issue Date: 11/2/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624124  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 11/2/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: EPHESUS  
Catalog Number: EPH-VN-08-D-950-U-44  
Description: EPHESUS LUMAVISION FLOOD – Middle Tier Light Square Luminaire w/  
Nema 4 distribution lens  
Light Source: (128) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp:	N/A	NEMA Type:	4H x 4V
Luminaire Lumens:	41827.5 lumens	Max Intensity:	135251.1 candela
Efficiency:	N/A	Max Intensity Angle:	0°H x 0°V
Efficacy:	85.7 lumens/watt		
Luminous Opening:	Rectangular (W 2' x L: 1' x H: 0')		

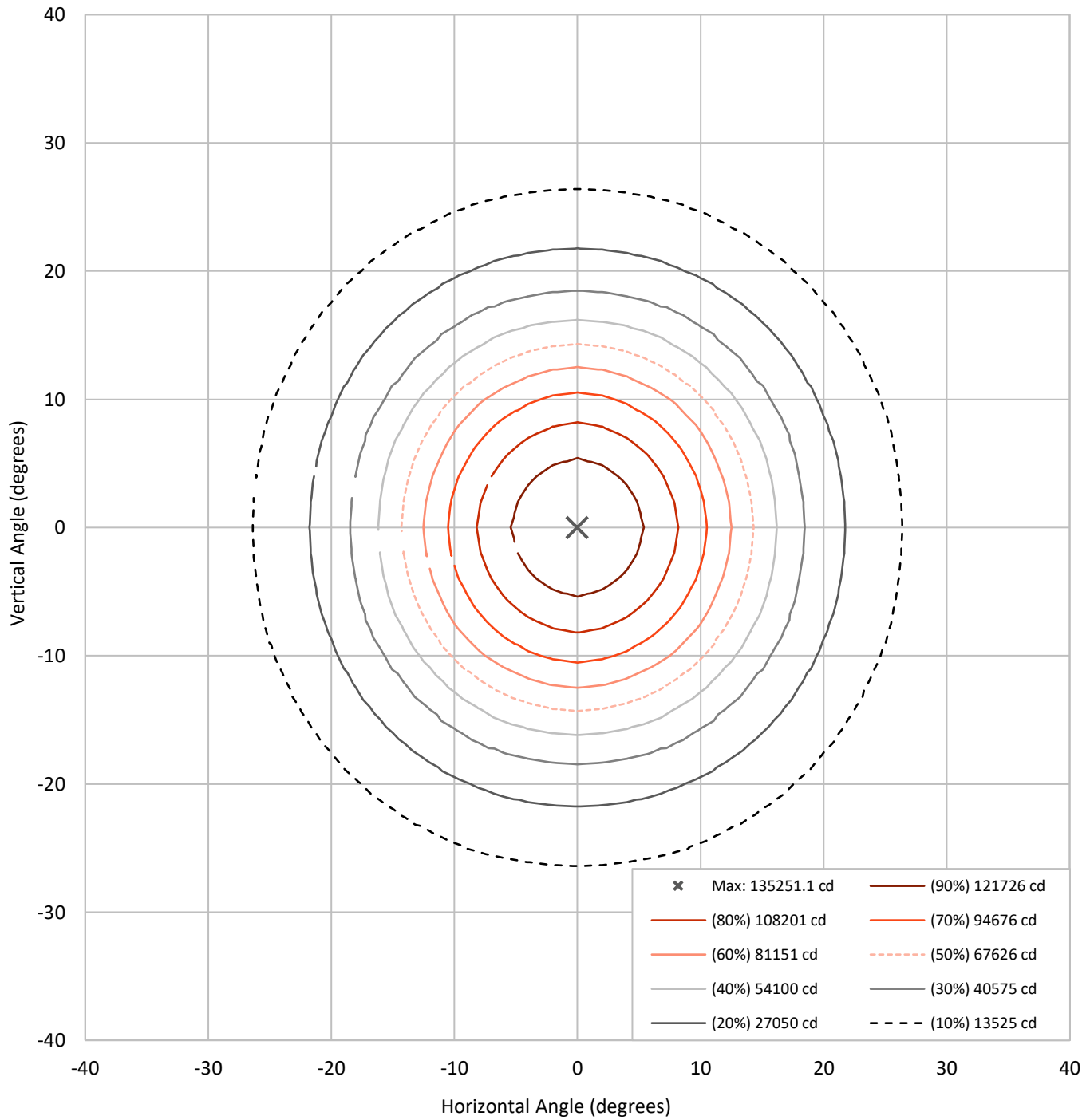
Beam Angle (50%):	28.6°H x 28.6°V	Field Angle (10%):	52.7°H x 52.7°V
Beam Lumens:	15092.1 lumens	Field Lumens:	25485.1 lumens
Beam Efficiency:	36.1%	Field Efficiency:	60.9%

Input Watts (W): 488.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Candela Plot





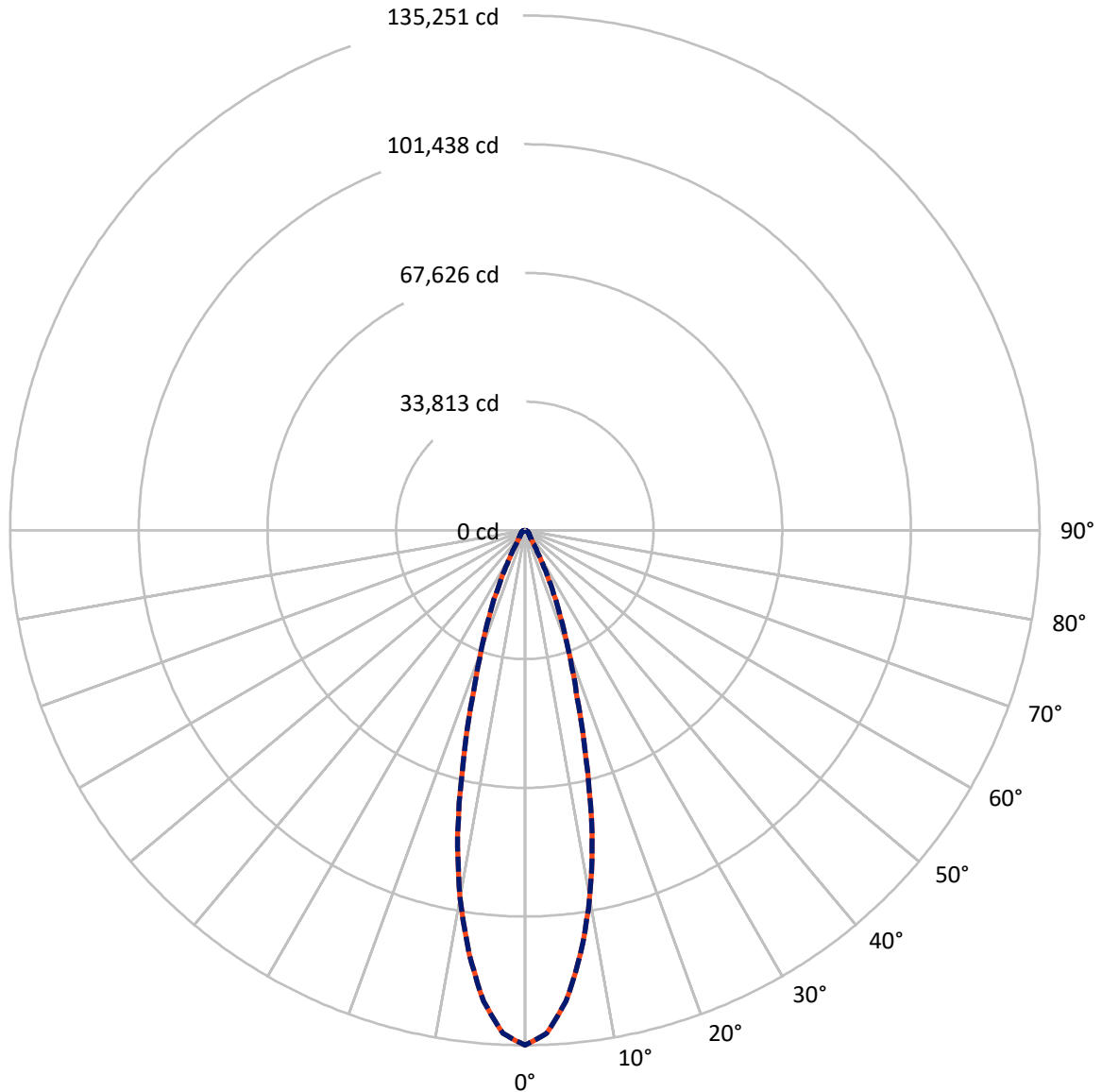
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### Lumen Table

90	1.0	7.1	18.0	28.8	33.2	28.8	18.0	7.1	1.0										
80																			
70																			
60	3.2	3.4	6.9	11.4	16.1	20.2	23.3	25.0	25.0	23.3	20.2	16.1	11.4	6.9	3.4				3.2
50		5.2	10.6	17.0	23.5	29.2	33.5	35.8	35.8	33.5	29.2	23.5	17.0	10.6	5.2				
40	5.5	6.9	13.8	21.8	29.9	38.0	45.4	50.0	50.0	45.4	38.0	29.9	21.8	13.8	6.9				5.5
30		8.4	16.5	25.9	37.2	52.9	77.2	102.8	102.8	77.2	52.9	37.2	25.9	16.5	8.4				
20	7.3	9.6	18.5	29.8	47.9	100.4	275.2	498.4	498.4	275.2	100.4	47.9	29.8	18.5	9.6				7.3
10		10.3	20.0	33.3	65.9	259.8	893.3	1723.2	1723.2	893.3	259.8	65.9	33.3	20.0	10.3				
0	8.0	10.7	20.7	35.7	85.4	457.6	1676.5	3305.2	3305.2	1676.5	457.6	85.4	35.7	20.7	10.7				8.0
-10		10.7	20.7	35.7	85.4	457.6	1676.5	3305.2	3305.2	1676.5	457.6	85.4	35.7	20.7	10.7				
-20	7.3	10.3	20.0	33.3	65.9	259.8	893.3	1723.2	1723.2	893.3	259.8	65.9	33.3	20.0	10.3				7.3
-30		9.6	18.5	29.8	47.9	100.4	275.2	498.4	498.4	275.2	100.4	47.9	29.8	18.5	9.6				
-40	5.5	8.4	16.5	25.9	37.2	52.9	77.2	102.8	102.8	77.2	52.9	37.2	25.9	16.5	8.4				5.5
-50		6.9	13.8	21.8	29.9	38.0	45.4	50.0	50.0	45.4	38.0	29.9	21.8	13.8	6.9				
-60	3.2	5.2	10.6	17.0	23.5	29.2	33.5	35.8	35.8	33.5	29.2	23.5	17.0	10.6	5.2				3.2
-70		3.4	6.9	11.4	16.1	20.2	23.3	25.0	25.0	23.3	20.2	16.1	11.4	6.9	3.4				
-80	1.0	7.1	18.0	28.8	33.2	28.8	18.0	7.1	1.0										
-90																			

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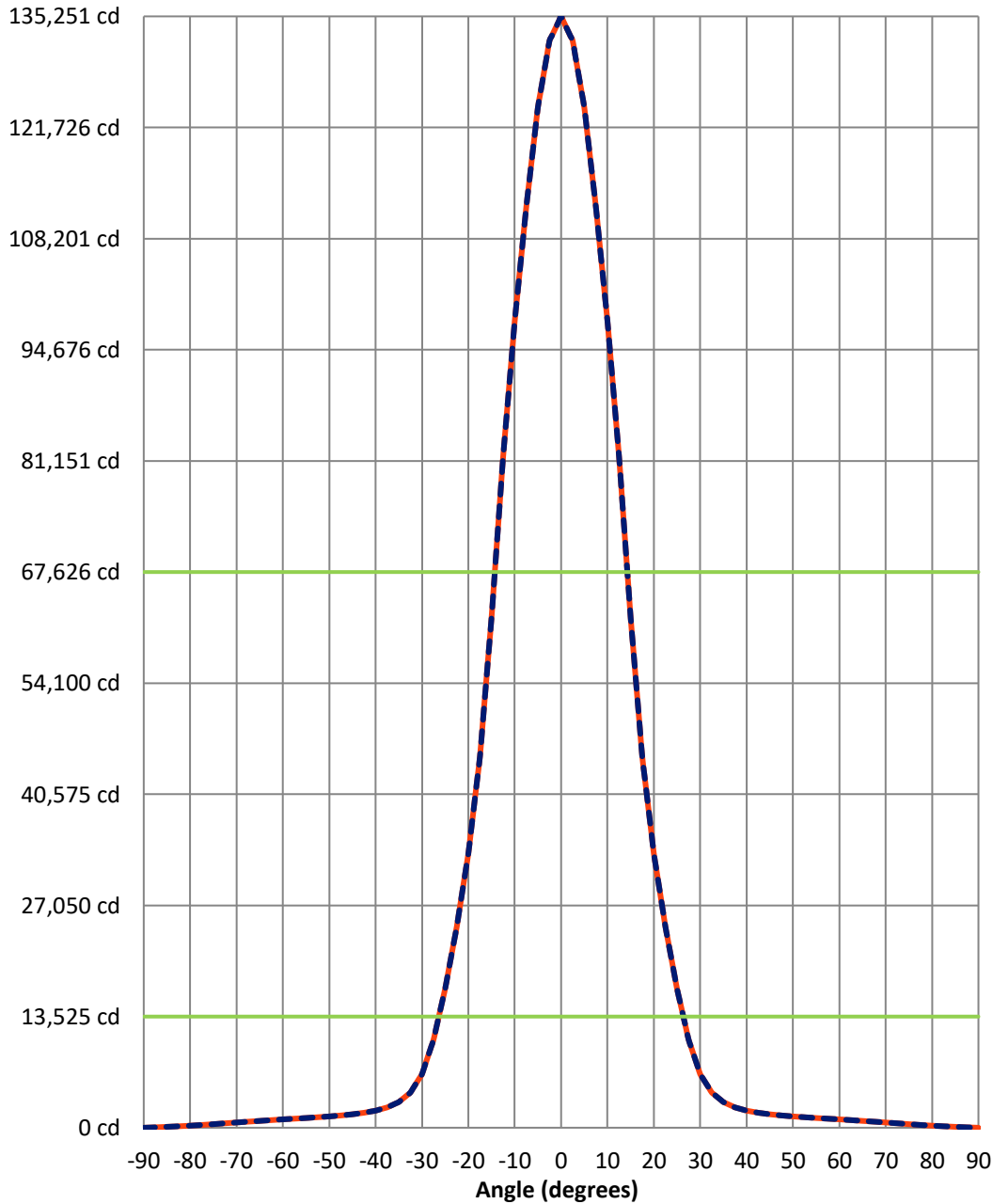
### Luminous Intensity Polar Plot



— Vertical Distribution Through 0-Deg      - - - Horizontal Distribution Through 0-Deg

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### Luminous Intensity Plot



**Beam:**  
 H Angle: 28.6°  
 V Angle: 28.6°  
 Lumens: 15092.1  
 Efficiency: 36.1%

**Field:**  
 H Angle: 52.7°  
 V Angle: 52.7°  
 Lumens: 25485.1  
 Efficiency: 60.9%

**Spill:**  
 Lumens: 16342.4  
 Efficiency: 39.1%

- Vertical Distribution through 0-Deg
- - - Horizontal Distribution through 0-Deg



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FIELD  
 BEAM

**CANDELA DISTRIBUTION:**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	48.0	48.0	48.0	48.0	48.0	48.0	48.0	43.6	43.6	43.6	43.6
85°	109.0	109.0	109.0	109.0	109.0	104.7	104.7	104.7	100.3	100.3	95.9
82.5°	174.4	174.4	174.4	174.4	170.1	170.1	165.7	165.7	161.4	161.4	157.0
80°	248.6	248.6	248.6	248.6	244.2	239.9	239.9	235.5	231.1	226.8	222.4
77.5°	335.8	335.8	335.8	331.4	327.1	327.1	322.7	314.0	309.6	300.9	296.5
75°	431.7	431.7	431.7	427.4	423.0	418.7	409.9	405.6	396.8	388.1	375.0
72.5°	536.4	536.4	536.4	532.0	523.3	519.0	510.2	501.5	492.8	479.7	466.6
70°	636.7	636.7	636.7	628.0	623.6	614.9	606.2	597.5	584.4	571.3	558.2
67.5°	737.0	737.0	737.0	728.3	723.9	715.2	706.5	693.4	680.3	662.9	649.8
65°	828.6	828.6	824.2	819.9	815.5	806.8	793.7	785.0	771.9	754.4	737.0
62.5°	924.5	924.5	920.2	915.8	907.1	898.4	885.3	872.2	854.8	837.3	819.9
60°	1020.5	1020.5	1016.1	1011.7	1003.0	989.9	976.9	963.8	946.3	924.5	902.7
57.5°	1099.0	1099.0	1094.6	1090.2	1081.5	1072.8	1059.7	1046.6	1029.2	1011.7	985.6
55°	1181.8	1181.8	1177.5	1168.7	1160.0	1151.3	1138.2	1120.8	1103.3	1081.5	1064.1
52.5°	1277.8	1277.8	1273.4	1264.7	1251.6	1238.5	1221.1	1199.3	1177.5	1155.7	1129.5
50°	1373.7	1373.7	1365.0	1356.3	1347.5	1330.1	1312.7	1290.8	1264.7	1238.5	1208.0
47.5°	1491.5	1491.5	1482.7	1469.6	1452.2	1434.8	1408.6	1378.1	1351.9	1321.4	1286.5
45°	1635.4	1635.4	1622.3	1609.2	1587.4	1556.9	1526.3	1491.5	1452.2	1413.0	1369.3
42.5°	1822.9	1822.9	1805.4	1783.6	1753.1	1713.9	1665.9	1617.9	1569.9	1517.6	1465.3
40°	2075.8	2075.8	2049.7	2019.1	1971.2	1914.5	1844.7	1779.3	1713.9	1639.7	1574.3
37.5°	2472.7	2472.7	2429.1	2372.4	2293.9	2197.9	2080.2	1993.0	1892.7	1796.7	1709.5
35°	3122.5	3122.5	3044.0	2943.7	2804.1	2629.7	2442.1	2293.9	2128.2	1993.0	1866.5
32.5°	4278.1	4278.1	4121.1	3924.9	3658.9	3318.7	3004.7	2743.0	2472.7	2263.3	2062.7
30°	6515.3	6515.3	6179.5	5765.2	5193.9	4478.7	3942.3	3440.8	2982.9	2638.4	2346.2
27.5°	10714.9	10540.5	10017.1	9158.0	7980.6	6515.3	5582.0	4522.3	3798.4	3139.9	2734.3
25°	16916.2	16628.4	15764.9	14356.3	12437.5	10261.4	8355.6	6345.2	5076.2	3981.6	3227.1
22.5°	24452.0	24055.1	22882.0	20967.5	18372.8	15477.1	12393.9	9502.6	6929.6	5263.7	3981.6
20°	33374.5	32842.5	31268.2	28712.6	25276.2	21591.2	17474.4	13601.9	9890.7	6929.6	5076.2
17.5°	45153.5	44342.3	41956.9	38119.2	33374.5	28407.4	23261.4	18263.7	13601.9	9502.6	6345.2
15°	62087.1	60717.8	56714.4	50356.1	42968.6	36043.4	29480.2	23261.4	17474.4	12393.9	8355.6
12.5°	81663.5	79757.8	74241.1	65637.0	55598.0	44647.6	36043.4	28407.4	21591.2	15477.1	10261.4
10°	98156.7	96146.3	90446.5	81816.2	69086.5	55598.0	42968.6	33374.5	25276.2	18372.8	12437.5
7.5°	112090.0	109839.7	103695.1	94253.6	81816.2	65637.0	50356.1	38119.2	28712.6	20967.5	14356.3
5°	124191.7	121339.6	114187.6	103695.1	90446.5	74241.1	56714.4	41956.9	31268.2	22882.0	15764.9
2.5°	132276.9	128927.7	121339.6	109839.7	96146.3	79757.8	60717.8	44342.3	32842.5	24055.1	16628.4
0°	135251.1	132276.9	124191.7	112090.0	98156.7	81663.5	62087.1	45153.5	33374.5	24452.0	16916.2



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**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	43.6	43.6	39.2	39.2	39.2	34.9	34.9	34.9	30.5	30.5	30.5
85°	95.9	91.6	91.6	87.2	82.9	78.5	78.5	74.1	69.8	65.4	61.1
82.5°	152.6	148.3	143.9	139.6	135.2	126.5	122.1	117.7	109.0	104.7	100.3
80°	213.7	209.3	200.6	196.2	187.5	178.8	170.1	161.4	152.6	143.9	135.2
77.5°	287.8	274.7	266.0	257.3	244.2	235.5	222.4	213.7	200.6	187.5	174.4
75°	366.3	353.2	340.2	327.1	314.0	296.5	283.5	266.0	252.9	235.5	222.4
72.5°	453.5	436.1	418.7	401.2	383.8	366.3	348.9	327.1	309.6	287.8	266.0
70°	540.8	523.3	505.9	484.1	462.3	440.5	418.7	392.5	370.7	344.5	318.4
67.5°	632.3	610.5	588.7	566.9	545.1	519.0	488.4	462.3	431.7	401.2	375.0
65°	719.6	697.8	671.6	645.4	619.3	593.1	562.6	532.0	497.2	462.3	431.7
62.5°	798.1	776.3	754.4	723.9	697.8	667.2	636.7	597.5	562.6	527.7	488.4
60°	880.9	854.8	828.6	798.1	767.5	737.0	702.1	662.9	628.0	584.4	545.1
57.5°	959.4	933.2	902.7	872.2	837.3	802.4	767.5	728.3	689.0	645.4	601.8
55°	1037.9	1011.7	981.2	946.3	907.1	867.8	828.6	789.3	750.1	702.1	654.1
52.5°	1103.3	1077.2	1046.6	1020.5	976.9	937.6	894.0	846.0	802.4	754.4	706.5
50°	1173.1	1142.6	1107.7	1077.2	1042.3	1003.0	955.1	907.1	854.8	806.8	754.4
47.5°	1251.6	1212.3	1173.1	1133.9	1099.0	1055.4	1016.1	963.8	911.4	854.8	802.4
45°	1330.1	1286.5	1242.9	1194.9	1151.3	1107.7	1064.1	1020.5	963.8	907.1	846.0
42.5°	1413.0	1360.6	1312.7	1264.7	1212.3	1160.0	1112.0	1064.1	1016.1	955.1	894.0
40°	1508.9	1447.8	1386.8	1330.1	1277.8	1216.7	1160.0	1107.7	1055.4	1003.0	937.6
37.5°	1617.9	1543.8	1469.6	1399.9	1334.5	1277.8	1212.3	1151.3	1099.0	1042.3	976.9
35°	1757.5	1648.4	1561.2	1474.0	1399.9	1330.1	1264.7	1194.9	1133.9	1077.2	1020.5
32.5°	1914.5	1779.3	1661.5	1561.2	1469.6	1386.8	1312.7	1242.9	1173.1	1107.7	1046.6
30°	2106.3	1931.9	1779.3	1648.4	1543.8	1447.8	1360.6	1286.5	1212.3	1142.6	1077.2
27.5°	2376.7	2106.3	1914.5	1757.5	1617.9	1508.9	1413.0	1330.1	1251.6	1173.1	1103.3
25°	2734.3	2346.2	2062.7	1866.5	1709.5	1574.3	1465.3	1369.3	1286.5	1208.0	1129.5
22.5°	3139.9	2638.4	2263.3	1993.0	1796.7	1639.7	1517.6	1413.0	1321.4	1238.5	1155.7
20°	3798.4	2982.9	2472.7	2128.2	1892.7	1713.9	1569.9	1452.2	1351.9	1264.7	1177.5
17.5°	4522.3	3440.8	2743.0	2293.9	1993.0	1779.3	1617.9	1491.5	1378.1	1290.8	1199.3
15°	5582.0	3942.3	3004.7	2442.1	2080.2	1844.7	1665.9	1526.3	1408.6	1312.7	1221.1
12.5°	6515.3	4478.7	3318.7	2629.7	2197.9	1914.5	1713.9	1556.9	1434.8	1330.1	1238.5
10°	7980.6	5193.9	3658.9	2804.1	2293.9	1971.2	1753.1	1587.4	1452.2	1347.5	1251.6
7.5°	9158.0	5765.2	3924.9	2943.7	2372.4	2019.1	1783.6	1609.2	1469.6	1356.3	1264.7
5°	10017.1	6179.5	4121.1	3044.0	2429.1	2049.7	1805.4	1622.3	1482.7	1365.0	1273.4
2.5°	10540.5	6515.3	4278.1	3122.5	2472.7	2075.8	1822.9	1635.4	1491.5	1373.7	1277.8
0°	10714.9	6515.3	4278.1	3122.5	2472.7	2075.8	1822.9	1635.4	1491.5	1373.7	1277.8





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**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	26.2	26.2	21.8	21.8	21.8	17.4	17.4	13.1	13.1	8.7	8.7
85°	56.7	52.3	48.0	43.6	39.2	34.9	34.9	30.5	26.2	21.8	17.4
82.5°	91.6	87.2	78.5	69.8	65.4	56.7	48.0	43.6	39.2	30.5	26.2
80°	126.5	117.7	109.0	100.3	91.6	78.5	69.8	61.1	48.0	39.2	34.9
77.5°	165.7	152.6	139.6	126.5	113.4	104.7	91.6	78.5	65.4	52.3	39.2
75°	205.0	187.5	174.4	157.0	143.9	126.5	109.0	95.9	82.9	65.4	48.0
72.5°	248.6	226.8	209.3	187.5	170.1	152.6	130.8	113.4	95.9	78.5	61.1
70°	296.5	270.4	244.2	222.4	200.6	174.4	152.6	130.8	109.0	91.6	69.8
67.5°	344.5	314.0	283.5	252.9	226.8	200.6	174.4	152.6	126.5	104.7	78.5
65°	392.5	357.6	327.1	292.2	257.3	226.8	200.6	170.1	143.9	113.4	91.6
62.5°	444.8	405.6	366.3	327.1	292.2	252.9	222.4	187.5	157.0	126.5	100.3
60°	501.5	457.9	409.9	366.3	327.1	283.5	244.2	209.3	174.4	139.6	109.0
57.5°	553.8	505.9	457.9	405.6	357.6	314.0	270.4	226.8	187.5	152.6	117.7
55°	606.2	553.8	501.5	444.8	392.5	344.5	296.5	248.6	205.0	165.7	126.5
52.5°	654.1	601.8	545.1	488.4	431.7	375.0	318.4	266.0	222.4	174.4	135.2
50°	702.1	645.4	584.4	527.7	462.3	401.2	344.5	287.8	235.5	187.5	143.9
47.5°	750.1	689.0	628.0	562.6	497.2	431.7	370.7	309.6	252.9	200.6	152.6
45°	789.3	728.3	662.9	597.5	532.0	462.3	392.5	327.1	266.0	213.7	161.4
42.5°	828.6	767.5	702.1	636.7	562.6	488.4	418.7	348.9	283.5	222.4	170.1
40°	867.8	802.4	737.0	667.2	593.1	519.0	440.5	366.3	296.5	235.5	178.8
37.5°	907.1	837.3	767.5	697.8	619.3	545.1	462.3	383.8	314.0	244.2	187.5
35°	946.3	872.2	798.1	723.9	645.4	566.9	484.1	401.2	327.1	257.3	196.2
32.5°	981.2	902.7	828.6	754.4	671.6	588.7	505.9	418.7	340.2	266.0	200.6
30°	1011.7	933.2	854.8	776.3	697.8	610.5	523.3	436.1	353.2	274.7	209.3
27.5°	1037.9	959.4	880.9	798.1	719.6	632.3	540.8	453.5	366.3	287.8	213.7
25°	1064.1	985.6	902.7	819.9	737.0	649.8	558.2	466.6	375.0	296.5	222.4
22.5°	1081.5	1011.7	924.5	837.3	754.4	662.9	571.3	479.7	388.1	300.9	226.8
20°	1103.3	1029.2	946.3	854.8	771.9	680.3	584.4	492.8	396.8	309.6	231.1
17.5°	1120.8	1046.6	963.8	872.2	785.0	693.4	597.5	501.5	405.6	314.0	235.5
15°	1138.2	1059.7	976.9	885.3	793.7	706.5	606.2	510.2	409.9	322.7	239.9
12.5°	1151.3	1072.8	989.9	898.4	806.8	715.2	614.9	519.0	418.7	327.1	239.9
10°	1160.0	1081.5	1003.0	907.1	815.5	723.9	623.6	523.3	423.0	327.1	244.2
7.5°	1168.7	1090.2	1011.7	915.8	819.9	728.3	628.0	532.0	427.4	331.4	248.6
5°	1177.5	1094.6	1016.1	920.2	824.2	737.0	636.7	536.4	431.7	335.8	248.6
2.5°	1181.8	1099.0	1020.5	924.5	828.6	737.0	636.7	536.4	431.7	335.8	248.6
0°	1181.8	1099.0	1020.5	924.5	828.6	737.0	636.7	536.4	431.7	335.8	248.6



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**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
90°	0.0	0.0	0.0	0.0
87.5°	4.4	4.4	0.0	0.0
85°	13.1	8.7	4.4	0.0
82.5°	17.4	13.1	4.4	0.0
80°	26.2	17.4	8.7	0.0
77.5°	30.5	21.8	8.7	0.0
75°	39.2	26.2	13.1	0.0
72.5°	43.6	30.5	13.1	0.0
70°	48.0	34.9	17.4	0.0
67.5°	56.7	34.9	17.4	0.0
65°	65.4	39.2	21.8	0.0
62.5°	69.8	43.6	21.8	0.0
60°	78.5	48.0	21.8	0.0
57.5°	87.2	52.3	26.2	0.0
55°	91.6	56.7	26.2	0.0
52.5°	100.3	61.1	30.5	0.0
50°	104.7	65.4	30.5	0.0
47.5°	109.0	69.8	30.5	0.0
45°	117.7	74.1	34.9	0.0
42.5°	122.1	78.5	34.9	0.0
40°	126.5	78.5	34.9	0.0
37.5°	135.2	82.9	39.2	0.0
35°	139.6	87.2	39.2	0.0
32.5°	143.9	91.6	39.2	0.0
30°	148.3	91.6	43.6	0.0
27.5°	152.6	95.9	43.6	0.0
25°	157.0	95.9	43.6	0.0
22.5°	161.4	100.3	43.6	0.0
20°	161.4	100.3	43.6	0.0
17.5°	165.7	104.7	43.6	0.0
15°	165.7	104.7	48.0	0.0
12.5°	170.1	104.7	48.0	0.0
10°	170.1	109.0	48.0	0.0
7.5°	174.4	109.0	48.0	0.0
5°	174.4	109.0	48.0	0.0
2.5°	174.4	109.0	48.0	0.0
0°	174.4	109.0	48.0	0.0

(END OF REPORT)